



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,546	08/01/2003	Steven R. Miller	60130-1396/02MRA0126	2683
26096	7590	09/20/2007	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			GOODEN JR, BARRY J	
		ART UNIT		PAPER NUMBER
		3616		
		MAIL DATE	DELIVERY MODE	
		09/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/632,546

Filing Date: August 01, 2003

Appellant(s): MILLER ET AL.

MAILED

SEP 20 2007

GROUP 3600

William S. Gottschalk
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 13, 2007 appealing from the Office action mailed September 11, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct.

Appellant's brief presents arguments relating to the non-entry of the amendment after final. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claim 8 under 35 U.S.C. 112, second paragraph has been withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,854,606	DE GONCOURT ET AL.	8-1989
4,934,667	PEES ET AL.	6-1990
2004/0051262	YOUNG	3-2004
4,493,481	MERKLE	1-1985

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, 4-9, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over de Goncourt et al., US Patent 4,854,606, in view of Pees et al., US Patent 4,934,667.

In regards to claims 1, 2, 4-9, and 11-15, de Goncourt et al. show all of the claimed elements including a vehicle suspension system comprising a frame (9), a pair of laterally spaced apart control arms (13,14) supported by the frame (9) at first pivotal locations (11,12), a knuckle (15,16) connected to each of the control arms (13,14), a lateral leaf spring (1) interconnected between the knuckles (15,16), and laterally spaced apart absorbers (27,28), with one arranged between the frame (9) and one of each of

Art Unit: 3616

the control arms (13,14). The control arms (13,14) are upper control arms, and one of each of the absorbers (27,28) is arranged between the frame (9) and one of each of the upper control arms (Reference is made to Figure 3). The lateral leaf spring (1) supports the knuckles (15,16) at second pivotal connections (25,26). Axes extend through the first (34,35) and second (25,26) pivotal connections, and the knuckles (15,16) being rotatable about the axes.

de Concourt et al. shows all of the claimed elements excluding air springs and valve details.

Pees et al. teach an air spring damper (12) having an air spring (generally shown at 164), a pressurized air source (200), a controller (214) for actuating valves (210,212) wherein at least one valve (210,212) is associated with one of each of the air springs (12) and the at least one valve (210,212) being independently actuatable (Reference is made to Column 8, Lines 38-41) in response to commands from the controller (214).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the suspension of de Goncourt et al. in view of the teachings of Pees et al. to include an air spring damper and thus an air spring instead of a traditional damper so as to provide optimized vehicle body isolation and damping of both body and wheel axle at their natural frequencies (Reference is made to Abstract, Pees et al.).

Claims 1-4, 8, 9, 10, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young, US Publication 2004/0051262 A1 in view of Merkle, US Patent 4,493,481.

In regards to claims 1-4, 8, 9, 10, 11, and 15 Young discloses a vehicle suspension comprising a frame (12), a pair of laterally spaced apart upper control arms (36a and 36b) pivotally supported by the frame at first pivotal connections (118a and 118b), a knuckle (26) connected to each of the upper control arms, a lateral leaf spring (34) interconnected between the lower portions of the knuckles (32) and laterally spaced apart coil over damper springs (112a and 112b) arranged between the frame and the upper control arms (Reference is made to Figures 5-7 and 12). The upper control arms (36a and 36b) extend from the first pivotal connections (118a,118b) to portions opposite the knuckles (26) the springs (112a,112b) arranged between the portions and the frame (12). The springs (112a,112b) support the knuckles (26). Axes extend through the first (118a,118b) and second pivotal (116a,116b) connections, and the knuckles (26) are rotatable about the axes.

Young discloses all of the claimed elements as previously discussed, except the laterally spaced apart air springs.

Merkle teaches an air spring (Reference is made to Figure 1; Column 7, Lines 29-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the suspension of Young in view of the teachings of Merkle to include an air spring so as to provide a simpler construction, improved force

transmission, reliable and inexpensive to manufacture spring support. (Column 2, Line 54 – Column 3, Line 10).

The examiner further notes that the recitation that the air springs are “to be arranged” between one of an upper control arm and a frame member is a functional recitation and does not positively recite that the air spring is arranged between the upper control arm and the frame member.

(10) Response to Argument

On page 5 of the Appeal Brief, appellant argues that the After Final Amendment should have been entered; the examiner makes reference to section 6 above of the Examiner’s Answer.

On page 5 of the Appeal Brief, appellant argues that the motivation provided by the examiner, which is directly out of the Pees et al. abstract, is improper and not supported by the teachings of the reference; however the examiner maintains the motivation is proper as Pees et al. clearly provides such motivation.

On page 6 of the Appeal Brief, appellant argues that the examiner has replaced a shock absorber with an air spring and can provide no motivation for the substitution. This assertion is not accurate, as the examiner has clearly substituted the shock absorber of Pees et al. for the shock absorber of de Goncourt et al. Furthermore, Pees et al. clearly provides motivation and teachings as to the benefits over conventional

Art Unit: 3616

shock absorbers (column 2, lines 34-37). An air spring is a component of the shock absorber (Pees et al.) and thus the combination teaches the structure as claimed.

On page 7 of the Appeal Brief, appellant argues that claims 8 and 15 are allowable since neither de Goncourt et al. or Pees et al. teaches a rotatable (steerable) knuckle. The examiner maintains the prior art discloses the claimed structure as the knuckles (reference is made to de Goncourt et al.) do rotate about the joints. With respect to the term "steerable" the appellants' arguments are not commensurate with the scope of the claims.

On page 7 of the Appeal Brief, appellant argues Young in view of Merkle is improper and must be withdrawn, as the Appellant asserts the examiner has replaced a shock absorber with an air spring and can provide no motivation for the substitution. The Examiner maintains that the rejection is proper as the air spring of Merkle clearly includes a damping capability, and as such an air spring damper system has been substituted for a spring damper system. Furthermore reference was made to Figure 1; yet this does not preclude the other embodiments of Merkle from being utilized, further reference is made to Figure 3 of Merkle, which clearly shows a conventional shock absorber surrounded by an air spring rather than coil spring.

On page 7 of the Appeal Brief, appellant argues that claims 8 and 15 are allowable since neither de Young or Merkle et al. teaches a rotatable (steerable) knuckle. The examiner maintains the prior art discloses the claimed structure as the knuckles (reference is made to Young) do rotate about the joints. With respect to the

Art Unit: 3616

term "steerable" appellants' arguments are not commensurate with the scope of the claims.

On page 8 of the Appeal Brief, appellant agrees all of the prior art utilized are in fact analogous art. The examiner has provided motivation for the combination of analogous art where the conventional shock absorbers have been replaced with shock absorbers incorporating air spring elements.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

 9/17/07
Barry Gooden Jr.

 9/17/07
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Conferees:

Barry Gooden Jr. 

Paul Dickson 

Leslie Morris 